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8 **UNITED STATES DISTRICT COURT**
9 **NORTHERN DISTRICT OF CALIFORNIA**
10 **SAN FRANCISCO DIVISION**

11 ILLUMINA, INC.,
12 ILLUMINA CAMBRIDGE LTD.,
13 *Plaintiffs,*

14 vs.

15 BGI GENOMICS CO., LTD.,
16 BGI AMERICAS CORP.,
17 MGI TECH CO., LTD.,
18 MGI AMERICAS, INC. and
19 COMPLETE GENOMICS, INC.,
20 *Defendants.*

21 COMPLETE GENOMICS INC.,
22 *Counterclaim-Plaintiff,*

23 vs.

24 ILLUMINA, INC., and
25 ILLUMINA CAMBRIDGE LTD.,
26 *Counterclaim-Defendants.*

Case No. 3:19-cv-03770-WHO
Case No. 3:20-cv-01465-WHO

FINAL JURY INSTRUCTIONS

Judge William H. Orrick

I. FINAL JURY INSTRUCTIONS

A. General Information

1. Duty of Jury

Members of the Jury: Now that you have heard all of the evidence, it is my duty to instruct you on the law that applies to this case.

A copy of these instructions will be sent to the jury room for you to consult during your deliberations.

It is your duty to find the facts from all the evidence in the case. To those facts you will apply the law as I give it to you. You must follow the law as I give it to you whether you agree with it or not. And you must not be influenced by any personal likes or dislikes, opinions, prejudices, or sympathy. That means that you must decide the case solely on the evidence before you. You will recall that you took an oath to do so.

Please do not read into these instructions or anything that I may say or do or have said or done that I have an opinion regarding the evidence or what your verdict should be.

2. Burdens of Proof

To remind you, the facts must be proven by a required amount of evidence known as the burden of proof. There are two burdens of proof that you will apply in this case: preponderance of the evidence and clear and convincing evidence.

When a party has the burden of proving any claim by a preponderance of the evidence, it means you must be persuaded by the evidence that the claim is more probably true than not true. You should base your decision on all of the evidence, regardless of which party presented it.

When a party has the burden of proving any claim or defense by clear and convincing evidence, it means that the party must present evidence that leaves you with a firm belief or conviction that it is highly probable that the factual contentions of the claim or defense are true. This is a higher standard of proof than proof by a preponderance of the evidence, but it does not require proof beyond a reasonable doubt.

3. What is Evidence

The evidence you are to consider in deciding what the facts are consists of:

1. the sworn testimony of any witness;
2. the exhibits that are admitted into evidence;
3. any facts to which the lawyers have agreed; and
4. any facts that I have instructed you to accept as proved.

1 **4. What is Not Evidence**

2 In reaching your verdict, you may consider only the testimony and exhibits received into
3 evidence. Certain things are not evidence, and you may not consider them in deciding what the facts
4 are. I will list them for you:

5 (1) Arguments and statements by lawyers are not evidence. The lawyers are not witnesses.
6 What they have said in their opening statements, closing arguments and at other times is intended to
7 help you interpret the evidence, but it is not evidence. If the facts as you remember them differ from
8 the way the lawyers have stated them, your memory of them controls.

9 (2) Questions and objections by lawyers are not evidence. Attorneys have a duty to their
10 clients to object when they believe a question is improper under the rules of evidence. You should
11 not be influenced by the objection or by the court's ruling on it.

12 (3) Testimony that is excluded or stricken, or that you have been instructed to disregard, is
13 not evidence and must not be considered. In addition some evidence was received only for a limited
14 purpose; when I have instructed you to consider certain evidence only for a limited purpose, you
15 must do so and you may not consider that evidence for any other purpose.

16 (4) Anything you have seen or heard when the court was not in session is not evidence. You
17 are to decide the case solely on the evidence received at the trial.

5. Direct and Circumstantial Evidence

Evidence may be direct or circumstantial. Direct evidence is direct proof of a fact, such as testimony by a witness about what that witness personally saw or heard or did. Circumstantial evidence is proof of one or more facts from which you could find another fact. You should consider both kinds of evidence. The law makes no distinction between the weight to be given to either direct or circumstantial evidence. It is for you to decide how much weight to give to any evidence.

6. Charts and Summaries Not Received Into Evidence

Certain charts and summaries not admitted into evidence have been shown to you in order to help explain the contents of books, records, documents, or other evidence in the case. Charts and summaries are only as good as the underlying evidence that supports them. You should, therefore, give them only such weight as you think the underlying evidence deserves.

1 **7. Ruling on Objections**

2 There are rules of evidence that control what can be received into evidence. When a lawyer
3 asked a question or offered an exhibit into evidence and a lawyer on the other side thought that it is
4 not permitted by the rules of evidence, that lawyer may have objected. If I overruled the objection,
5 the question was answered or the exhibit received. If I sustained the objection, the question was not
6 answered, and the exhibit was not received. Whenever I sustained an objection to a question, you
7 must ignore the question and must not guess what the answer might have been.

8 Sometimes I may have ordered that evidence be stricken from the record and that you
9 disregard or ignore that evidence. That means when you are deciding the case, you must not consider
10 the stricken evidence for any purpose.

8. Credibility of Witnesses

In deciding the facts in this case, you may have to decide which testimony to believe and which testimony not to believe. You may believe everything a witness says, or part of it, or none of it.

In considering the testimony of any witness, you may take into account:

1. the opportunity and ability of the witness to see or hear or know the things testified to;
2. the witness's memory;
3. the witness's manner while testifying;
4. the witness's interest in the outcome of the case, if any;
5. the witness's bias or prejudice, if any;
6. whether other evidence contradicted the witness's testimony;
7. the reasonableness of the witness's testimony in light of all the evidence; and
8. any other factors that bear on believability.

Sometimes a witness may say something that is not consistent with something else he or she said. Sometimes different witnesses will give different versions of what happened. People often forget things or make mistakes in what they remember. Also, two people may see the same event but remember it differently. You may consider these differences, but do not decide that testimony is untrue just because it differs from other testimony.

However, if you decide that a witness has deliberately testified untruthfully about something important, you may choose not to believe anything that witness said. On the other hand, if you think the witness testified untruthfully about some things but told the truth about others, you may accept the part you think is true and ignore the rest.

The weight of the evidence as to a fact does not necessarily depend on the number of witnesses who testify. What is important is how believable the witnesses were, and how much weight you think their testimony deserves.

9. Deposition in Lieu of Live Testimony

A deposition is the sworn testimony of a witness taken before trial. The witness is placed under oath to tell the truth and lawyers for each party may ask questions. The questions and answers are recorded.

You heard some witnesses testify by deposition. Insofar as possible, you should consider deposition testimony, presented to you in court in lieu of live testimony, in the same way as if the witness had been present to testify.

10. Foreign Language Testimony

You have heard testimony of a witness who testified in Mandarin. Witnesses who do not speak English or are more proficient in another language testify through an official court interpreter. Although some of you may know Mandarin, it is important that all jurors consider the same evidence. Therefore, you must accept the interpreter's translation of the witness's testimony. You must disregard any different meaning.

You must not make any assumptions about a witness or a party based solely on the use of an interpreter to assist that witness or party.

11. Implicit Bias

We all have feelings, assumptions, perceptions, fears, and stereotypes about others. Some biases we are aware of, and others we might not be fully aware of, which is why they are called implicit or unconscious biases. No matter how unbiased we think we are, our brains are hard-wired to make unconscious decisions. We look at others and filter what they say through our own personal experience and background. Because we all do this, we often see life and evaluate evidence in a way that tends to favor people who are like ourselves, or who have had life experiences like our own. We can also have biases about people like ourselves. One common example is the automatic association of male with career and female with family. Bias can affect our thoughts, how we remember what we see and hear, whom we believe or disbelieve, and how we make important decisions.

As jurors, you are being asked to make an important decision in the case. You must one, take the time you need to reflect carefully and thoughtfully about the evidence.

Two, think about why you are making the decision you are making and examine it for bias. Reconsider your first impressions of the people and the evidence in this case. If the people involved in this case were from different backgrounds, for example, richer or poorer, more or less educated, older or younger, or of a different gender, gender identity, race, religion or sexual orientation, would you still view them, and the evidence, the same way?

Three, listen to one another. You must carefully evaluate the evidence and resist, and help each other resist, any urge to reach a verdict influenced by bias for or against any party or witness. Each of you have different backgrounds and will be viewing this case in light of your own insights, assumptions and biases. Listening to different perspectives may help you to better identify the possible effects these hidden biases may have on decision making.

And four, resist jumping to conclusions based on personal likes or dislikes, generalizations, gut feelings, prejudices, sympathies, stereotypes, or unconscious biases.

The law demands that you make a fair decision based solely on the evidence, your individual evaluations of that evidence, your reason and common sense, and these instructions.

12. Expert Opinion

You have heard testimony from experts who testified to opinions and the reasons for their opinions. This opinion testimony is allowed, because of the education or experience of those witnesses.

Such opinion testimony should be judged like any other testimony. You may accept it or reject it, and give it as much weight as you think it deserves, considering the witness's education and experience, the reasons given for the opinion, and all the other evidence in the case.

13. Use of Notes

Whether or not you took notes, you should rely on your own memory of the evidence. Notes are only to assist your memory. You should not be overly influenced by your notes or those of other jurors.

B. Claim Construction

1. Interpretation of Claims

Before you decide whether the claims are invalid, you will need to understand the patent claims. As I mentioned at the beginning of the case, the patent claims are numbered sentences at the end of the patent that describe the boundaries of the patent's protection. It is my job as judge to explain to you the meaning of any language in the claims that needs interpretation.

I have interpreted the meaning of some of the language in the patent claims involved in this case. You must accept those interpretations as correct. My interpretation of the language should not be taken as an indication that I have a view regarding the issues of contributory and induced infringement, willfulness and invalidity. The decisions regarding contributory and induced infringement, willfulness and invalidity are yours to make.

I instruct you that the following claim terms have the following definitions:

The term "nucleotide" means "a 'nucleotide' consists of a nitrogenous base, a sugar, and one or more phosphate groups. The term nucleotide encompasses analogs and derivatives of nucleotides. A 'derivative' or 'analog' of a nucleotide means a compound or molecule whose core structure is the same as, or closely resembles that of, a nucleotide, but which has a chemical or physical modification, such as a different or additional side groups, which allows the derivative nucleotide to be linked to another molecule."

The term "disulphide linkage" means "a chemical linkage including an S-S bond."

The term "incorporating into the nucleic acid molecule" means "incorporating into the nucleic acid molecule at the 3' end."

The term "[comprises/comprising] an azido group" means "includes at least an azido group (i.e. a group of three nitrogen atoms covalently linked, represented as (-N3))."

The term "nucleoside" means "a 'nucleoside' is structurally similar to a nucleotide, but is missing the phosphate moieties. The term nucleoside encompasses analogs and derivatives of nucleosides. A derivative or analog of a nucleoside is molecules whose core structure is the same as, or closely resembles that of, a nucleoside, but which has a chemical or physical modification, such

1 as a different or additional side groups, which allows the derivative nucleoside to be linked to another
2 molecule.”

3 The term “wherein the blocking group is removed prior to introduction of the next
4 complementary nucleotide” means “wherein the blocking group is removed before the next
5 complementary nucleotide is incorporated into a growing nucleotide strand complementary to the
6 target single-stranded polynucleotide being sequenced.”
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2. Independent and Dependent Claims

This case involves two types of patent claims: independent claims and dependent claims.

An “independent claim” sets forth all of the requirements that must be met in order to be covered by that claim. Thus, it is not necessary to look at any other claim to determine what an independent claim covers. In this case, claim 1 of the ’537 Patent, claim 11 of the ’200 Patent, and claims 1, 9, 31, 34, 42, 47, and 50 of the ’025 Patent are each independent claims.

The remainder of the asserted claims in the ’537 Patent, the ’200 Patent, the ’025 Patent, the ’973 Patent, and the ’444 Patent are “dependent claims.” A dependent claim does not itself recite all of the requirements of the claim but refers to at least one other claim for some of its requirements. In this way, the claim “depends” on another claim. A dependent claim incorporates all of the requirements of the claim or claims to which it refers. The dependent claim then adds its own additional requirements. To determine what a dependent claim covers, it is necessary to look at both the dependent claim and any other claim to which it refers. A product or method that meets all of the requirements of both the dependent claim, and any claim to which it refers is covered by that dependent claim. For example, claim 4 of the ’537 Patent refers to claim 1 of the ’537 Patent. Claim 4 of the ’537 Patent therefore includes all elements recited in claim 1, as well as all of the elements recited in claim 4.

1 **C. Infringement**

2 **1. Infringement—Burden of Proof**

3 I will now instruct you on the rules you must follow in deciding whether Illumina has proven
4 that the Defendants have infringed one or more of the asserted claims of the asserted patents. To
5 prove infringement of any claim, Illumina must persuade you that it is more likely than not that the
6 Defendants have infringed that claim. When I refer to “Defendants”, I am referring to BGI Genomics
7 Co., Ltd., BGI Americas Corp., MGI Tech Co., Ltd., MGI Americas, Inc. and Complete Genomics,
8 Inc.

9 The Court has determined that the Defendants have directly infringed the Asserted Claims of
10 each of the Asserted Patents in this case. The jury must determine whether the Defendants have
11 induced the infringement of the Asserted Claims as well as whether the Defendants have contributed
12 to the infringement of the Asserted Claims. Instructions on those theories follow.

2. Contributory Infringement

While the Court has determined that the Defendants have infringed the claims by making or using or importing the accused products in the United States, Illumina also argues that the Defendants have contributed to infringement by another. Contributory infringement may arise when someone supplies something that is used to infringe one or more of the patent claims. As with direct infringement, you must determine contributory infringement on a claim-by-claim basis.

In order for there to be contributory infringement by the Defendants, another party must directly infringe a claim of the '537, '200, '025, '973, and '444 Patents; if there is no direct infringement by anyone, there can be no contributory infringement.

If you find someone has directly infringed the '537, '200, '025, '973, or '444 Patents, then contributory infringement exists if:

Defendants supplied an important component of the infringing part of the product or method;

The component is not a common component suitable for non-infringing use; and

Defendants supplied the component with the knowledge of the '537, '200, '025, '973, and '444 Patents and knowledge that the component was especially made or adapted for use in an infringing manner.

A “common component suitable for non-infringing use” is a component that has uses other than as a component of the patented product or other than in the patented method, and those other uses are not occasional, farfetched, impractical, experimental, or hypothetical.

3. Inducing Patent Infringement

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2 Illumina argues that the Defendants have actively induced another to infringe the '537, '200,
3 '025, '973, and '444 Patents. In order for the Defendants to have induced infringement of another,
4 Defendants must have induced another to directly infringe a claim of the '537, '200, '025, '973, or
5 '444 Patent; if there is no direct infringement by anyone, there can be no induced infringement. As
6 with direct infringement, you must determine induced infringement on a claim-by-claim basis.

7 In order to be liable for inducing infringement, Defendants must:

8 (1) have intentionally taken action that actually induced direct infringement;

9 (2) have been aware of the '537, '200, '025, '973, or '444 Patents; and

10 (3) have known that the acts it was causing would infringe the patent.

11 Defendants may be considered to have known that the acts it was causing would infringe the
12 '537, '200, '025, '973, or '444 Patent if it subjectively believed there was a high probability that the
13 direct infringer's product or method was patented and nevertheless deliberately took steps to avoid
14 learning that fact, in other words, willfully blinded itself to the infringing nature of the direct
15 infringer's acts.

4. Willful Infringement

In this case, Illumina argues that the Defendants willfully infringed Illumina's patents-in-suit.

To prove willful infringement, Illumina must persuade you that it is more likely true than not true that Defendants intentionally ignored or recklessly disregarded a valid claim of Illumina's Asserted Patents. You must base your decision on Defendants' knowledge and actions at the time of infringement. Evidence that Defendants had knowledge of the patent at the time of infringement by itself is not sufficient to show willfulness. Rather, to show willfulness, you must find that the Defendants engaged in additional conduct evidencing deliberate or reckless disregard of Illumina's patent rights.

In deciding whether Defendants willfully infringed, you should consider all of the facts surrounding the infringement including:

(1) whether Defendants intentionally copied Illumina's patented technology in developing the accused products and methods;

(2) whether Defendants knew, or should have known, that its conduct involved an unreasonable risk of infringement; and

(3) whether Defendants had a reasonable belief that at the time of infringement that its products did not infringe the asserted patent or that the patent was invalid.

D. Invalidity

1. Invalidity—Burden of Proof

I will now instruct you on the rules you must follow in deciding whether Defendants have proven that claims 1, 4, and 6 of the '537 Patent, claims 11 and 19 of the '200 Patent, claims 1, 9, 27, 31, 33, 34, 42, 47, and 50 of the '025 Patent, claim 13 of the '973 Patent, and claim 3 of the '444 Patent are invalid. Before discussing the specific rules, I want to remind you about the clear and convincing evidence standard of proof applies to this defense. To prove invalidity of any patent claim, Defendants must persuade you that it is highly probable that the claim is invalid.

In this case, Defendants are relying on certain prior art published before Illumina sought its patents, that were not before the United States Patent and Trademark office during the prosecution of any of the asserted patents. In deciding the issue of validity, you may take into account the fact that the prior art and other evidence that Defendants are relying on differs from what the examiner in the PTO considered. Prior art that differs from what the examiner considered may carry more weight than the prior art that was considered and may make Defendants' burden of showing that the patent claims are invalid easier to sustain.

2. Invalidity—Perspective of One of Ordinary Skill In The Art

The question of invalidity of a patent claim is determined from the perspective of a person of ordinary skill in the art in the field of the asserted invention as of August 23, 2002. In deciding the level of ordinary skill, you should consider all the evidence introduced at trial, including:

- (1) the levels of education and experience of persons working in the field;
- (2) the types of problems encountered in the field; and
- (3) the sophistication of the technology.

Illumina contends that the level of ordinary skill in the field was a member of a team of scientists addressing SBS product development. Such a person would have held a doctoral degree (Ph.D.) in chemistry, molecular biology, or a closely related discipline, and had at least five years of practical academic or industrial laboratory experience. Thus, a person of ordinary skill in the art includes a person having a doctoral degree in a field related to chemistry, and at least five years of laboratory experience directed toward the research and development of DNA sequencing technologies.

Defendants contend that the level of ordinary skill in the field was a scientist working on the research and development of DNA analysis and sequencing techniques, including the synthesis and use of labeled nucleotides. Such a person would typically have held a Ph.D. degree related to bioorganic chemistry, biological chemistry, molecular biology, molecular genetics or a closely related discipline, and had at least two years of practical academic or industrial laboratory experience directed toward the research and development of DNA analysis and sequencing technologies, including the synthesis and use of labeled nucleotides. Alternatively, such a person would typically have held an M.S. degree related to bioorganic chemistry, biological chemistry, molecular biology, molecular genetics or a closely related discipline, and had at least four years of practical academic or industrial laboratory experience directed toward the research and development of DNA analysis and sequencing technologies, including the synthesis and use of labeled nucleotides. In the further alternative, such a person would typically have held a B.S. degree related to bioorganic chemistry, biological chemistry, molecular biology, molecular genetics or a closely related discipline, and had at least six years of practical academic or industrial laboratory experience directed toward the

1 research and development of DNA analysis and sequencing technologies, including the synthesis
2 and use of labeled nucleotides. While a person of ordinary skill in the art is a single person, in the
3 sequencing field, that person would generally be working in a team, with some people on the team
4 having more knowledge in some areas and vice versa. The hypothetical person of ordinary skill will
5 be imbued with the knowledge of all those on the team.

6 You must determine the level of ordinary skill in the art.

3. Written Description Requirement

A patent claim is invalid if the patent does not contain an adequate written description of the claimed invention. The purpose of this written description requirement is to demonstrate that the inventor was in possession of the invention at the time the application for the patent was filed, even though the claims may have been changed or new claims added since that time. The written description requirement is satisfied if a person of ordinary skill in the field reading the original patent application at the time it was filed would have recognized that the patent application described the invention as claimed, even though the description may not use the exact words found in the claim. A requirement in a claim need not be specifically disclosed in the patent application as originally filed if a person of ordinary skill would understand that the missing requirement is necessarily implied in the patent application as originally filed.

4. Enablement

A patent claim is invalid if the patent at the time it was originally filed did not contain a description of the claimed invention that is sufficiently full and clear to enable a person of ordinary skill in the field at the time to make and use the full scope of the invention. This is known as the “enablement” requirement.

The patent may be enabling even though it does not expressly state some information if a person of ordinary skill in the field could make and use the invention without having to do excessive experimentation. In determining whether excessive experimentation is required, you may consider the following factors:

- the scope of the claimed invention;
- the amount of guidance presented in the patent;
- the amount of experimentation necessary;
- the time and cost of any necessary experimentation;
- how routine any necessary experimentation is in the field of DNA sequencing;
- whether the patent discloses specific working examples of the claimed invention;
- the nature and predictability of the field; and
- the level of ordinary skill in the field of DNA sequencing.

The question of whether a patent is enabling is judged as of the date the original application for the patent was first filed.

5. Obviousness

Not all innovations are patentable. A patent claim is invalid if the claimed invention would have been obvious to a person of ordinary skill in the field at the time the claimed invention was made. This means that even if all of the requirements of the claim cannot be found in a single prior art reference, a person of ordinary skill in the field of DNA sequencing who knew about all this prior art would have come up with the claimed invention.

The ultimate conclusion of whether a claim is obvious should be based upon your determination of several factual decisions.

First, you must decide the level of ordinary skill in the field that someone would have had at the time the claimed invention was made. In deciding the level of ordinary skill, you should consider all the evidence introduced at trial, including:

- (1) the levels of education and experience of persons working in the field;
- (2) the types of problems encountered in the field; and
- (3) the sophistication of the technology.

Second, you must decide the scope and content of the prior art. Illumina and Defendants disagree as to whether Kovacs should be included in the prior art you use to decide the validity of claim 3 of the '444 patent and claim 13 of the '973 patent. In order to be considered as prior art to the '444 and '973 patents, the reference must be reasonably related to the claimed invention of that patent. A reference is reasonably related if it is in the same field as the claimed invention or is from another field to which a person of ordinary skill in the field would look to solve a known problem.

Third, you must decide what difference, if any, existed between the claimed invention and the prior art.

Finally, you should consider any of the following factors that you find have been shown by the evidence:

- (1) commercial success of a product due to the merits of the claimed invention;
- (2) a long felt need for the solution provided by the claimed invention;
- (3) unsuccessful attempts by others to find the solution provided by the claimed invention;
- (4) copying of the claimed invention by others;

1 (5) unexpected and superior results from the claimed invention;

2 (6) acceptance by others of the claimed invention as shown by praise from others in the field
3 or from the licensing of the claimed invention; and

4 (7) other evidence tending to show nonobviousness.

5 The presence of any of factors 1-7 may be considered by you as an indication that the claimed
6 invention would not have been obvious at the time the claimed invention was made. Although you
7 should consider any evidence of these factors, the relevance and importance of any of them to your
8 decision on whether the claimed invention would have been obvious is up to you.

9 A patent claim composed of several elements is not proved obvious merely by demonstrating
10 that each of its elements was independently known in the prior art. In evaluating whether such a
11 claim would have been obvious, you may consider whether Defendants have identified a reason that
12 would have prompted a person of ordinary skill in the field to combine the elements or concepts from
13 the prior art in the same way as in the claimed invention. There is no single way to define the line
14 between true inventiveness on the one hand (which is patentable) and the application of common
15 sense and ordinary skill to solve a problem on the other hand (which is not patentable). For example,
16 market forces or other design incentives may be what produced a change, rather than true
17 inventiveness. You may consider whether an inventor would look to the prior art to help solve the
18 particular problem at hand. You may consider whether the change was merely the predictable result
19 of using prior art elements according to their known functions, or whether it was the result of true
20 inventiveness. You may also consider whether there is some teaching or suggestion in the prior art
21 to make the modification or combination of elements claimed in the patent. Also, you may consider
22 whether the innovation applies a known technique that had been used to improve a similar device or
23 method in a similar way. You may also consider whether the claimed invention would have been
24 obvious to try, meaning that the claimed innovation was one of a relatively small number of possible
25 approaches to the problem with a reasonable expectation of success by those skilled in the art.
26 However, you must be careful not to determine obviousness using the benefit of hindsight; many
27 true inventions might seem obvious after the fact. You should put yourself in the position of a person
28

1 of ordinary skill in the field at the time the claimed invention was made and you should not consider
2 what is known today or what is learned from the teaching of the patent.

E. Damages

1. Damages—Introduction

I will instruct you about the measure of damages. By instructing you on damages, I am not suggesting which party should win on any issue. If you find that any Asserted Claim is valid, you must then determine the amount of money damages to be awarded to Illumina to compensate it for the infringement.

The amount of those damages must be adequate to compensate Illumina for the infringement. A damages award should put the patent holder in approximately the financial position it would have been in had the infringement not occurred, but in no event may the damages award be less than a reasonable royalty. You should keep in mind that the damages you award are meant to compensate the patent holder and not to punish an infringer.

Illumina has the burden to persuade you of the amount of its damages. You should award only those damages that Illumina more likely than not suffered. While Illumina is not required to prove its damages with mathematical precision, it must prove them with reasonable certainty. Illumina is not entitled to damages that are remote or speculative.

2. Damages Are Awarded to Compensate for Infringement

Only acts of infringement that occur in the United States are subject to the asserted U.S. patents and U.S. law. The sales of a product outside of the United States does not give rise to an infringement claim in the United States. Illumina is owed no damages for sales that occurred outside of the United States. In other words, Illumina is not entitled to damages for sales where the products were manufactured, sold, shipped, and delivered abroad, and you may not award Illumina damages for sales that occurred outside of the United States.

3. Reasonable Royalty—Definition

A royalty is a payment made to a patent holder in exchange for the right to make, use or sell the claimed invention. This right is called a “license.” A reasonable royalty is the payment for the license that would have resulted from a hypothetical negotiation between the patent holder and the alleged infringer taking place at the time when the infringing activity first began. In considering the nature of this negotiation, you must assume that both parties would have acted reasonably and would have entered into a license agreement. You must also assume that both parties believed the patent was valid and infringed. Your role is to determine what the result of that negotiation would have been. The test for damages is what royalty would have resulted from the hypothetical negotiation and not simply what either party would have preferred.

4. Reasonable Royalty – Relevant Factors

In determining the reasonable royalty, you should consider all the facts known and available to the parties at the time the infringement began. Some of the kinds of factors that you may consider in making your determination are:

(1) The nature and scope of the license, as exclusive or nonexclusive, or as restricted or non-restricted in terms of territory or with respect to whom the manufactured product may be sold.

(2) The licensor's established policy and marketing program to maintain his or her patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly.

(3) The commercial relationship between the licensor and licensee, such as whether they are competitors in the same territory in the same line of business, or whether they are inventor and promoter.

(4) The duration of the patents and the term of the license.

(5) The established profitability of the product made under the patents, its commercial success, and its current popularity.

(6) The utility and advantages of the patented property over the old modes or devices, if any, that had been used for working out similar results.

(7) The nature of the patented invention, the character of the embodiment of it as owned and produced by the licensor, and the benefits to those who have used the invention.

(8) The extent to which the infringer has made use of the invention and any evidence probative of the value of that use.

(9) The portion of the profit or of the selling price that may be customary in the particular business or in a comparable business to allow for the use of the invention or analogous inventions.

(10) The portion of the realizable profits that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer.

(11) The opinion and testimony of qualified experts.

1 (12) The amount that a licensor (such as the patentee) and a licensee (such as the infringer)
2 would have agreed upon (at the time the infringement began) if both had been reasonably and
3 voluntarily trying to reach an agreement; that is, the amount which a prudent licensee—who desired,
4 as a business proposition, to obtain a license to manufacture and sell a particular article embodying
5 the patented invention—would have been willing to pay as a royalty and yet be able to make a
6 reasonable profit and which amount would have been acceptable by a prudent patentee who was
7 willing to grant a license.

8 No one factor is dispositive, and you can and should consider the evidence that has been
9 presented to you in this case on each of these factors. You may also consider any other factors which,
10 in your mind, would have increased or decreased the royalty Defendants would have been willing to
11 pay and Illumina would have been willing to accept, acting as normally prudent business people.

5. Reasonable Royalty - Apportionment

The ultimate royalty you determine must reflect the incremental value attributable to the infringing features of the product and no more. When the accused infringing products have both patented and unpatented features, measuring this value requires you to identify and award only the value of the patented features.

6. Reasonable Royalty – Availability of Non-Infringing Alternatives

In determining a reasonable royalty, you may consider whether or not Defendants had non-infringing alternatives to taking a license from Illumina that were available at the time of the hypothetical negotiation and whether that would have affected the reasonable royalty the parties would have agreed upon. You may also consider whether the party had the necessary equipment, know-how, and experience to implement the alternative and the time and cost to the party of implementing the alternative. A non-infringing alternative is a way of providing the same or comparable functionality or achieving the same or a comparable result that does not require using the asserted claims in the United States.

7. Date of Commencement of Damages

During the course of this lawsuit, it was determined that the Defendants should stop the research activities in San Jose, California that are the basis for the damages Illumina is seeking. Accordingly, if you decide that Illumina is entitled to damages, the time period for the damages that may be awarded by you commences in early 2014 and ends in June 2020.

F. Deliberation and Verdict

1. Duty to Deliberate

Before you begin your deliberations, elect one member of the jury as your presiding juror. The presiding juror will preside over the deliberations and serve as the spokesperson for the jury in court.

You shall diligently strive to reach agreement with all of the other jurors if you can do so. Your verdict must be unanimous.

Each of you must decide the case for yourself, but you should do so only after you have considered all of the evidence, discussed it fully with the other jurors, and listened to their views.

It is important that you attempt to reach a unanimous verdict but, of course, only if each of you can do so after having made your own conscientious decision. Do not be unwilling to change your opinion if the discussion persuades you that you should. But do not come to a decision simply because other jurors think it is right, or change an honest belief about the weight and effect of the evidence simply to reach a verdict.

2. Consideration of Evidence

Because you must base your verdict only on the evidence received in the case and on these instructions, I remind you that you must not be exposed to any other information about the case or to the issues it involves. Except for discussing the case with your fellow jurors during your deliberations:

Do not communicate with anyone in any way and do not let anyone else communicate with you in any way about the merits of the case or anything to do with it. This includes discussing the case in person, in writing, by phone, tablet, computer, or any other means, via email, via text messaging, or any internet chat room, blog, website or application, including but not limited to Facebook, YouTube, Twitter, Instagram, LinkedIn, Snapchat, TikTok, or any other forms of social media. This applies to communicating with your family members, your employer, the media or press, and the people involved in the trial. If you are asked or approached in any way about your jury service or anything about this case, you must respond that you have been ordered not to discuss the matter and to report the contact to the court.

Do not read, watch, or listen to any news or media accounts or commentary about the case or anything to do with it; do not do any research, such as consulting dictionaries, searching the Internet, or using other reference materials; and do not make any investigation or in any other way try to learn about the case on your own. Do not visit or view any place discussed in this case, and do not use Internet programs or other devices to search for or view any place discussed during the trial. Also, do not do any research about this case, the law, or the people involved—including the parties, the witnesses or the lawyers—until you have been excused as jurors. If you happen to read or hear anything touching on this case in the media, turn away and report it to me as soon as possible.

These rules protect each party's right to have this case decided only on evidence that has been presented here in court. Witnesses here in court take an oath to tell the truth, and the accuracy of their testimony is tested through the trial process. If you do any research or investigation outside the courtroom, or gain any information through improper communications, then your verdict may be influenced by inaccurate, incomplete or misleading information that has not been tested by the trial process. Each of the parties is entitled to a fair trial by an impartial jury, and if you decide the case

1 based on information not presented in court, you will have denied the parties a fair trial. Remember,
2 you have taken an oath to follow the rules, and it is very important that you follow these rules.

3 A juror who violates these restrictions jeopardizes the fairness of these proceedings. If any
4 juror is exposed to any outside information, please notify the court immediately.

3. Communication with the Court

If it becomes necessary during your deliberations to communicate with me, you may send a note through the clerk, signed by your presiding juror or by one or more members of the jury. No member of the jury should ever attempt to communicate with me except by a signed writing; I will communicate with any member of the jury on anything concerning the case only in writing, or here in open court. If you send out a question, I will consult with the parties before answering it, which may take some time. You may continue your deliberations while waiting for the answer to any question. Remember that you are not to tell anyone—including me—how the jury stands, numerically or otherwise, until after you have reached a unanimous verdict or have been discharged. Do not disclose any vote count in any note to the court.

4. Return of Verdict

A verdict form has been prepared for you. After you have reached unanimous agreement on a verdict, your presiding juror should complete the verdict form according to your deliberations, sign and date it, and advise the clerk that you are ready to return to the courtroom.